

SEQUENCE LISTING

<110> Irvin, Randall T.
Hodges, Robert S.

<120> PSUEDOMONAS TREATMENT
COMPOSITION AND METHOD

<130> 8900-0008.30

<140> US 09/329,884

<141> 1999-06-11

<150> US 60/089,155

<151> 1998-06-12

<160> 22

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 387

<212> DNA

<213> Pseudomonas aeruginosa

<220>

<221> CDS

<222> (0)...(0)

<400> 1

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gctgccacgg	caggcatcga	gaaagatacc	gacatcaacg	gcaagtatgt	tgccaaggta	180
acaactgggtg	gcaccgcagc	tgcgtctggt	ggttgcaacta	tcgttgctac	tatgaaagcc	240
totgatgtgg	ctactcctct	gagggggaaa	actctgactt	tgactctagg	aaatgctgac	300
aagggttctt	acacttgggc	ctgtacttcc	aacgcagata	acaagtacct	gccaaaaacc	360
tgccagactg	ctaccactac	cactccg				387

<210> 2

<211> 129

<212> PRT

<213> Pseudomonas aeruginosa

<400> 2

Ala	Leu	Glu	Gly	Thr	Glu	Phe	Ala	Arg	Ala	Gln	Leu	Ser	Glu	Arg	Met
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Thr	Leu	Ala	Ser	Gly	Leu	Lys	Thr	Lys	Val	Ser	Asp	Ile	Phe	Ser	Gln
			20					25				30			
Asp	Gly	Ser	Cys	Pro	Ala	Asn	Thr	Ala	Ala	Thr	Ala	Gly	Ile	Glu	Lys
		35				40				45					
Asp	Thr	Asp	Ile	Asn	Gly	Lys	Tyr	Val	Ala	Lys	Val	Thr	Thr	Gly	Gly
	50				55			60							
Thr	Ala	Ala	Ala	Ser	Gly	Gly	Cys	Thr	Ile	Val	Ala	Thr	Met	Lys	Ala
65				70			75						80		
Ser	Asp	Val	Ala	Thr	Pro	Leu	Arg	Gly	Lys	Thr	Leu	Thr	Leu	Thr	Leu
			85				90					95			
Gly	Asn	Ala	Asp	Lys	Gly	Ser	Tyr	Thr	Trp	Ala	Cys	Thr	Ser	Asn	Ala
		100					105					110			
Asp	Asn	Lys	Tyr	Leu	Pro	Lys	Thr	Cys	Gln	Thr	Ala	Thr	Thr	Thr	Thr
		115				120					125				
Pro															

<210> 3
 <211> 369
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 3
 gcgctcgagg gtaccgaatt cgctcggtcg gaaggcgcat ctgctcttgc ttcggtcaat
 60
 ccggtgaaga ctaccgttga agaggcgctt tctcgtgggt ggagcgtgaa gagcgggtaca
 120
 ggtacagagg acgctactaa gaaagaggtt cctctggggg tggcggcaga tgctaacaaa
 180
 ctgggtacta tcgcactcaa acccgatcct gctgatggta ctgcagatat cactttgact
 240
 ttcactatgg gcggtgcagg accgaagaat aaagggaaaa ttattaccct gactcgtact
 300
 gcagctgatg gtctctggaa gtgcaccagt gatcaggatg agcagtttat tccgaaaggt
 360
 tgctctagg
 369

<210> 4
 <211> 123
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 4
 Ala Leu Glu Gly Thr Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu
 1 5 10 15
 Ala Ser Val Asn Pro Leu Lys Thr Thr Val Glu Glu Ala Leu Ser Arg
 20 25 30
 Gly Trp Ser Val Lys Ser Gly Thr Gly Thr Glu Asp Ala Thr Lys Lys
 35 40 45
 Glu Val Pro Leu Gly Val Ala Ala Asp Ala Asn Lys Leu Gly Thr Ile
 50 55 60
 Ala Leu Lys Pro Asp Pro Ala Asp Gly Thr Ala Asp Ile Thr Leu Thr
 65 70 75 80
 Phe Thr Met Gly Gly Ala Gly Pro Lys Asn Lys Gly Lys Ile Ile Thr
 85 90 95
 Leu Thr Arg Thr Ala Ala Asp Gly Leu Trp Lys Cys Thr Ser Asp Gln
 100 105 110
 Asp Glu Gln Phe Ile Pro Lys Gly Cys Ser Arg
 115 120

<210> 5
 <211> 366
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> CDS
 <222> (0)...(0)

<400> 5
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 ccgctgaaga ccactgttga agagtcgctg tcgctgggaa ttgctggtag caaaattaaa 120
 attggtacta ctgcttctac tgcgaccgaa acatatgccg gcgctgagcc ggatgccaac 180
 aagttgggtg taattgctgt agcaatcgaa gatagtggtg cgggtgatat tacctttacc 240
 ttccagactg gtacctctag tcccaagaat gctactaaag ttatcactct gaaccgtact 300
 gcggatgggg tctgggcttg taaatctacc caggatccga tgttcactcc gaaaggttct 360

<210> 6
 <211> 122
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 6
 Ala Leu Glu Gly Thr Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu
 1 5 10 15
 Ala Thr Ile Asn Pro Leu Lys Thr Thr Val Glu Glu Ser Leu Ser Arg
 20 25 30
 Gly Ile Ala Gly Ser Lys Ile Lys Ile Gly Thr Thr Ala Ser Thr Ala
 35 40 45
 Thr Glu Thr Tyr Ala Gly Val Glu Pro Asp Ala Asn Lys Leu Gly Val
 50 55 60
 Ile Ala Val Ala Ile Glu Asp Ser Gly Ala Gly Asp Ile Thr Phe Thr
 65 70 75 80
 Phe Gln Thr Gly Thr Ser Ser Pro Lys Asn Ala Thr Lys Val Ile Thr
 85 90 95
 Leu Asn Arg Thr Ala Asp Gly Val Trp Ala Cys Lys Ser Thr Gln Asp
 100 105 110
 Pro Met Phe Thr Pro Lys Gly Ser Asp Asn
 115 120

<210> 7
 <211> 381
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> CDS
 <222> (0)...(0)

<400> 7
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 gcgctgaaga ccgctgcgga gtccggcgatt ctggaaggga aggagattgt ttccagcgcg 120
 actcctaaag ataccagta tgacattggc ttcaccgagt ctactttgct agatggttct 180
 ggtaagagtc agatccaggt aacggacaat aaagatggca ccggttgagtt ggtcgctacc 240
 ttgggtaaat cttctgggtc cgccatcaaa ggggctgtaa tcaactgttc gcgtaaaaat 300
 gacggagtct ggaactgcaa aatcaccaaa actcctacag cttggaagcc caactacgct 360
 ccggctaatt gcccgaattc c 381

<210> 8
 <211> 127
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 8
 Ala Leu Glu Gly Thr Glu Phe Ala Arg Thr Gln Val Thr Arg Ala Val
 1 5 10 15
 Ser Glu Val Ser Ala Leu Lys Thr Ala Ala Glu Ser Ala Ile Leu Glu
 20 25 30
 Gly Lys Glu Ile Val Ser Ser Ala Thr Pro Lys Asp Thr Gln Tyr Asp
 35 40 45
 Ile Gly Phe Thr Glu Ser Thr Leu Leu Asp Gly Ser Gly Lys Ser Gln
 50 55 60
 Ile Gln Val Thr Asp Asn Lys Asp Gly Thr Val Glu Leu Val Ala Thr
 65 70 75 80
 Leu Gly Lys Ser Ser Gly Ser Ala Ile Lys Gly Ala Val Ile Thr Val
 85 90 95
 Ser Arg Lys Asn Asp Gly Val Trp Asn Cys Lys Ile Thr Lys Thr Pro

100 105 110
 Thr Ala Trp Lys Pro Asn Tyr Ala Pro Ala Asn Cys Pro Asn Ser
 115 120 125

<210> 9
 <211> 381
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> CDS
 <222> (0)...(0)

<400> 9
 ggcgtcgagg gtaccgaatt ctctcgctct cagggtctcca gggttatggc ggaggctggc 60
 tccttgaaga ctgcagttga ggccctgcctc caggatgggc gtactgctgt ggggtactgct 120
 gctggtcaat gcgacccggg tgcgacgggt tccagtttgt tgactgggtc ttctcagact 180
 tctcaaacc tgcgaaccaa taccgggtgt ccgcagggtc tggatcctct gactactcaa 240
 accactatca ttgcgacttt tggtaacggc gcacccgcag ctatttctgg ccagactctg 300
 acctggactc gtgatgttaa tgggtggctgg agctgtgcta ctaccgtaga tgctaaattc 360
 cgtcctaattg gctgtactga c 381

<210> 10
 <211> 127
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 10
 Ala Leu Glu Gly Thr Glu Phe Ser Arg Ser Gln Val Ser Arg Val Met
 1 5 10 15
 Ala Glu Ala Gly Ser Leu Lys Thr Ala Val Glu Ala Cys Leu Gln Asp
 20 25 30
 Gly Arg Thr Ala Val Gly Thr Ala Ala Gly Gln Cys Asp Pro Gly Ala
 35 40 45
 Thr Gly Ser Ser Leu Leu Thr Gly Ala Ser Gln Thr Ser Gln Thr Leu
 50 55 60
 Pro Thr Asn Thr Gly Val Pro Gln Val Leu Asp Pro Leu Thr Thr Gln
 65 70 75 80
 Thr Thr Ile Ile Ala Thr Phe Gly Asn Gly Ala Ser Ala Ala Ile Ser
 85 90 95
 Gly Gln Thr Leu Thr Trp Thr Arg Asp Val Asn Gly Gly Trp Ser Cys
 100 105 110
 Ala Thr Thr Val Asp Ala Lys Phe Arg Pro Asn Gly Cys Thr Asp
 115 120 125

<210> 11
 <211> 507
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> CDS
 <222> (0)...(0)

<400> 11
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 atcgaagccc taaaggccga gatagaagca ctttaaggcag agatcgaggc gctaaaagcg 120
 gaaatagagg ctctgaaggc aggcgggtgga ggagaattcg ctcgttcgga aggcgcactc 180
 gctcttgctt cgggtcaatcc gttgaagact accggtgaag aggcgctttc tctggtgttg 240
 agcgtgaaga gcggtacagg tacagaggac gctactaaga aagaggttcc tctgggggtg 300
 gcggcagatg ctaacaaact gggtactatc gcactcaaac ccgacccctg tgatggtact 360
 gcagatatca ctctgacttt cactatgggc ggtgcaggac cgaagaataa agggaaaatt 420

attaccctga ctcgactgc agctgatggt ctctggaagt gcaccagtga tcaggatgag 480
cagtttattc cgaaagggtg ctctagg 507

<210> 12
<211> 169
<212> PRT
<213> Pseudomonas aeruginosa

<400> 12
Ala Leu Glu His His His His Gly Gly Gly Gly Glu Ile Glu Ala
1 5 10 15
Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys
20 25 30
Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Gly
35 40 45
Gly Gly Gly Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu Ala Ser
50 55 60
Val Asn Pro Leu Lys Thr Thr Val Glu Glu Ala Leu Ser Arg Gly Trp
65 70 75 80
Ser Val Lys Ser Gly Thr Gly Thr Glu Asp Ala Thr Lys Lys Glu Val
85 90 95
Pro Leu Gly Val Ala Ala Asp Ala Asn Lys Leu Gly Thr Ile Ala Leu
100 105 110
Lys Pro Asp Pro Ala Asp Gly Thr Ala Asp Ile Thr Leu Thr Phe Thr
115 120 125
Met Gly Gly Ala Gly Pro Lys Asn Lys Gly Lys Ile Ile Thr Leu Thr
130 135 140
Arg Thr Ala Ala Asp Gly Leu Trp Lys Cys Thr Ser Asp Gln Asp Glu
145 150 155 160
Gln Phe Ile Pro Lys Gly Cys Ser Arg
165

<210> 13
<211> 507
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> CDS
<222> (0)...(0)

<400> 13
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gtttctgctc tcgaaaaaga ggtcagtgtc ctggaaaaag aggtgtcagc cttggaaaag 120
gaagtatcag cacttgagaa gggcggtgga ggagaattcg ctogttcgga aggcgcattc 180
gctcttgctt cgggtcaatcc gttgaagact accggtgaag aggcgctttc tcgtggttgg 240
agcgtgaaga gcggtacagg tacagaggac gctactaaga aagaggttcc tctgggggtg 300
gcggcagatg ctaacaaact gggtactatc gcactcaaac ccgatcctgc tgatggtact 360
gcagatatca ctttgacttt cactatgggc ggtgcaggac cgaagaataa agggaaaatt 420
attaccctga ctcgactgc agctgatggt ctctggaagt gcaccagtga tcaggatgag 480
cagtttattc cgaaagggtg ctctagg 507

<210> 14
<211> 169
<212> PRT
<213> Pseudomonas aeruginosa

<400> 14
Ala Leu Glu His His His His Gly Gly Gly Gly Glu Val Ser Ala
1 5 10 15
Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu
20 25 30

130 135 140
Ala Asp Lys Gly Ser Tyr Thr Trp Ala Cys Thr Ser Asn Ala Asp Asn
145 150 155 160
Lys Tyr Leu Pro Lys Thr Cys Gln Thr Ala Thr Thr Thr Thr Pro
165 170 175

<210> 17
<211> 525
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> CDS
<222> (0)...(0)

<400> 17
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gaagtatcag cacttgagaa gggcggtgga ggagaattcg cacgcgctca gcttagcgaa 180
cgcatgaccc tggccagtgg tctcaagacg aaagtgagcg atatcttctc tcaggatggg 240
tcctgcccgg ctaatactgc tgccacggca ggcacgcaga aagataccga catcaacggc 300
aagtatgttg ccaaggtaac aactggtggc accgcagctg cgtctggtgg ttgcactatc 360
gttgctacta tgaaagcctc tgatgtggct actcctctga gggggaaaac tctgactttg 420
actctaggaa atgctgacaa ggggttcttac acttgggctt gtacttccaa cgcagataac 480
aagtacctgc caaaaacctg ccagactgct accactacca ctccg 525

<210> 18
<211> 175
<212> PRT
<213> Pseudomonas aeruginosa

<400> 18
Ala Leu Glu His His His His Gly Gly Gly Gly Glu Val Ser Ala
1 5 10 15
Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu
20 25 30
Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Gly
35 40 45
Gly Gly Gly Glu Phe Ala Arg Ala Gln Leu Ser Glu Arg Met Thr Leu
50 55 60
Ala Ser Gly Leu Lys Thr Lys Val Ser Asp Ile Phe Ser Gln Asp Gly
65 70 75 80
Ser Cys Pro Ala Asn Thr Ala Ala Thr Ala Gly Ile Glu Lys Asp Thr
85 90 95
Asp Ile Asn Gly Lys Tyr Val Ala Lys Val Thr Thr Gly Gly Thr Ala
100 105 110
Ala Ala Ser Gly Gly Cys Thr Ile Val Ala Thr Met Lys Ala Ser Asp
115 120 125
Val Ala Thr Pro Leu Arg Gly Lys Thr Leu Thr Leu Thr Leu Gly Asn
130 135 140
Ala Asp Lys Gly Ser Tyr Thr Trp Ala Cys Thr Ser Asn Ala Asp Asn
145 150 155 160
Lys Tyr Leu Pro Lys Thr Cys Gln Thr Ala Thr Thr Thr Thr Pro
165 170 175

<210> 19
<211> 504
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> CDS

<222> (0)...(0)

<400> 19

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atcgaagccc	taaaggccga	gatagaagca	cttaaggcag	agatcgaggc	gctaaaagcg	120
gaaatagagg	ctctgaaggc	aggcgggtgga	ggagaattcg	cgcggttcgga	aggtgcttcg	180
gcgctggcga	cgatcaaccc	gctgaagacc	actggtgaag	agtcgctgtc	gcgtggaatt	240
gctggttagca	aaattaaaaat	tggtactact	gcttctactg	cgaccgaaaac	atatgccggc	300
gtcgagccgg	atgccaacaa	gttgggtgta	attgctgtag	caatcgaaga	tagtggtgcg	360
ggtgatatta	cctttacctt	ccagactggt	acctctagtc	ccaagaatgc	tactaaagtt	420
atcactctga	accgtactgc	ggatggggtc	tgggcttgta	aatctacca	ggatccgatg	480
ttcactccga	aaggttctga	taac				504

<210> 20

<211> 168

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 20

Ala	Leu	Glu	His	His	His	His	His	Gly	Gly	Gly	Gly	Glu	Ile	Glu	Ala
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Leu	Lys	Ala	Glu	Ile	Glu	Ala	Leu	Lys	Ala	Glu	Ile	Glu	Ala	Leu	Lys
			20					25					30		
Ala	Glu	Ile	Glu	Ala	Leu	Lys	Ala	Glu	Ile	Glu	Ala	Leu	Lys	Ala	Gly
		35					40					45			
Gly	Gly	Gly	Glu	Phe	Ala	Arg	Ser	Glu	Gly	Ala	Ser	Ala	Leu	Ala	Thr
		50				55					60				
Ile	Asn	Pro	Leu	Lys	Thr	Thr	Val	Glu	Glu	Ser	Leu	Ser	Arg	Gly	Ile
65					70					75				80	
Ala	Gly	Ser	Lys	Ile	Lys	Ile	Gly	Thr	Thr	Ala	Ser	Thr	Ala	Thr	Glu
				85					90					95	
Thr	Tyr	Ala	Gly	Val	Glu	Pro	Asp	Ala	Asn	Lys	Leu	Gly	Val	Ile	Ala
			100					105					110		
Val	Ala	Ile	Glu	Asp	Ser	Gly	Ala	Gly	Asp	Ile	Thr	Phe	Thr	Phe	Gln
		115				120						125			
Thr	Gly	Thr	Ser	Ser	Pro	Lys	Asn	Ala	Thr	Lys	Val	Ile	Thr	Leu	Asn
		130				135					140				
Arg	Thr	Ala	Asp	Gly	Val	Trp	Ala	Cys	Lys	Ser	Thr	Gln	Asp	Pro	Met
145					150					155				160	
Phe	Thr	Pro	Lys	Gly	Ser	Asp	Asn								
				165											

<210> 21

<211> 504

<212> DNA

<213> *Pseudomonas aeruginosa*

<220>

<221> CDS

<222> (0)...(0)

<400> 21

gcgctcgagc	accatcatca	ccatggtggt	ggtggcgagg	tatccgcttt	agagaaagaa	60
gtttctgctc	tcgaaaaaga	ggtcagtgc	ctggaaaaag	aggtgtcagc	cttgaaaaag	120
gaagtatcag	cacttgagaa	ggcgggtgga	ggagaattcg	cgcggttcgga	aggtgcttcg	180
gcgctggcga	cgatcaaccc	gctgaagacc	actggtgaag	agtcgctgtc	gcgtggaatt	240
gctggttagca	aaattaaaaat	tggtactact	gcttctactg	cgaccgaaaac	atatgccggc	300
gtcgagccgg	atgccaacaa	gttgggtgta	attgctgtag	caatcgaaga	tagtggtgcg	360
ggtgatatta	cctttacctt	ccagactggt	acctctagtc	ccaagaatgc	tactaaagtt	420
atcactctga	accgtactgc	ggatggggtc	tgggcttgta	aatctacca	ggatccgatg	480
ttcactccga	aaggttctga	taac				504

[illegible]

9